

MIAMI-DADE COUNTY PRODUCT CONTROL SECTION

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DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

Siplast 1111 Highway 67 South Arkadelphia, AR 71923

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Siplast Modified Bitumen Roof Systems over Wood Decks.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA renews and revises NOA No. 08-0731.05 consists of pages 1 through 15. The submitted documentation was reviewed by Jorge L. Acebo.

MIAMI-DADE COUNTY
APPROVED

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ROOFING SYSTEM APPROVAL

Category: Roofing

Sub-Category: Modified Bitumen

Deck Type:WoodMaterial:SBSMaximum Design Pressure:-172.5 psf

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: TABLE 1

| Product | <u>Dimensions</u> | Test Specification | Product <u>Description</u> |
|-------------------|--------------------------------|---------------------------|---|
| Parabase | 3' x 108' | ASTM D4601 | Asphalt coated fiberglass base sheet for mechanically fastened applications. |
| Parabase FS | 3' x 108' | ASTM D4601 | Asphalt coated fiberglass base sheet with a polyolefin back surfacing for mechanically fastened applications. |
| Parabase Plus | 3.28' x 102.3'; 28 lbs./sq. | ASTM D4601 | Elastomeric asphalt coated base sheet. |
| Paradiene 20 | 3.28' x 50'; 90 lbs./sq. | ASTM D6163 | Asphalt elastomer sheet with random fiberglass mat reinforcement used as the base ply of a Paradiene 20/30 system. |
| Paradiene 20 HT | 3.28' x 50'; 90 lbs./sq. | ASTM D6163 | Asphalt elastomer sheet with fiberglass scrim reinforcement for use as a base ply of a Paradiene 20/30 system. |
| Paradiene 20 EG | 3.28' x 33.5'; 90 lbs./sq. | ASTM D6163 | Heavy duty asphalt elastomer sheet with fiberglass scrim reinforcement for use as a base ply in Paradiene systems. |
| Paradiene 20 HV | 3.28' x 33.5'; 90 lbs./sq. | ASTM D6163 | Heavy duty asphalt elastomer sheet with random fiberglass mat reinforcement used as a base ply of a Paradiene 20/30 system. |
| Paradiene 20 PR | 3.28' x 50'; 55 lbs./sq. | ASTM D6164 | Asphalt elastomer sheet with polyester fiberglass scrim composite reinforcement used as the top ply of a Paradiene 20/20 PR system having a gravel surfacing. Has additional puncture resistance. |
| Paradiene 20 TG | 3.28' x 33.5'; 70 lbs./sq. | ASTM D6163 | Asphalt elastomer sheet with random fiberglass reinforcement used as the base ply of a Paradiene 20/30 TG Series system. |
| Paradiene 20 TG F | 3.28' x 33.5'; 70 lbs./sq. | ASTM D6163 | Asphalt elastomer sheet with random fiberglass reinforcement used as the base ply of a Paradiene 20/30 TG Series system. |



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| <u>Product</u> | <u>Dimensions</u> | Test Specification | Product <u>Description</u> |
|---|--------------------------------|-----------------------|---|
| Paradiene 20 HT TG | 3.28' x 33.5'; 70 lbs./sq. | ASTM D6163 | Asphalt elastomer sheet with fiberglass scrim reinforcement for use as a base ply of a Paradiene 20/30 system. |
| Paradiene 20 EG TG | 3.28' x 33.5'; 100 lbs./sq. | ASTM D6163 | Heavy duty asphalt elastomer sheet with fiberglass scrim reinforced for use as a base ply in Paradiene 20TG/30TG systems. |
| Paradiene 20 HV TG | 3.28' x 33.5'; 100 lbs./sq. | ASTM D6163 | Heavy duty asphalt elastomer sheet with random fiberglass mat reinforcement used as a base ply of a Paradiene 20TG/30TG system. |
| Paradiene 20 PR TG | 3.28' x 33.5'; 96 lbs./sq. | ASTM D6164 | High performance SBS modified bitumen finish ply designed for use in gravel surfaced. Used as a surface ply of a Paradiene 20/20TG system. |
| Paradiene 20 TS | 3.28' x 33.5'; 76 lbs./sq. | ASTM D6163 | High performance, semi adhered SBS modified bitumen with random fiberglass mat reinforcement used as a base ply of Paradiene 20/30 systems. |
| Paradiene 30 FR Paradiene 30 CR FR | 3.28' x 33.5'; 85 lbs./sq. | ASTM D6163 | Asphalt elastomer sheet with mineral surfacing and random glass mat reinforcement, for use as the top ply of a Paradiene 20/30 system. |
| Paradiene 30 HT FR | 3.28' x 33.5'; 87 lbs./sq. | ASTM D6163 | Fire-rated asphalt elastomer sheet with mineral surfacing and fiberglass scrim reinforcement for use as the top ply of a Paradiene 20/30 FR system. |
| Paradiene 30 MW FR | 3.28' x 33.5'; 87 lbs./sq. | ASTM D6163 | Fire rated asphalt elastomer sheet with mineral surfacing and ultra high tensile fiberglass reinforcement for use as the top ply of a Paradiene 20/30 FR system. |
| Paradiene 30 FR TG Paradiene 30 CR FR TG | 3.28' x 25.25'; 80 lbs./sq. | ASTM D6163 | Fire rated asphalt elastomer sheet with mineral surfacing and random fiberglass mat reinforcement for use as the top ply sheet of a Paradiene 20/30 TG Series system. |
| Paradiene 30 HT FR TG | 3.28' x 25.25'; 80 lbs./sq. | ASTM D6163 | Fire rated asphalt elastomer sheet with mineral surfacing and fiberglass scrim reinforcement for use as the top ply of a Paradiene TG Series system. |
| Paradiene 40 FR | 3.28' x 26'; 115 lbs./sq. | ASTM D6163 | Fire rated asphalt elastomer sheet with mineral surfacing, glass mat/glass scrim reinforced. |
| Paradiene 40 FR TG | 3.28' x 26'; 115 lbs./sq. | ASTM D6163 | Fire rated asphalt elastomer sheet with mineral surfacing, glass mat/glass scrim reinforced. |



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| | | Test | Product |
|------------------------------------|--------------------------------|----------------------|---|
| Product | Dimensions | Specification | Description |
| Parafor 50 LT | 3.28' x 17.5'; 114 lbs./sq. | ASTM D6164 | Heavy duty asphalt elastomer sheet with mineral surfacing, polyester mat scrim reinforced. |
| Parafor 50 TG | 3.28' x 17.5'; 114 lbs./sq. | ASTM D6164 | Heavy duty asphalt elastomer sheet with mineral surfacing, polyester mat scrim reinforced. |
| IREX 40 | 3.28' x 34'; 89 lbs./sq. | ASTM D6163 | High-melt asphalt sheet with random fiberglass mat reinforcement for use as the base ply sheet for a Veral system. |
| IREX HT | 3.28' x 34'; 89 lbs./sq. | ASTM D6163 | High-melt asphalt sheet with fiberglass scrim reinforcement for use as a base ply sheet for the Veral system. |
| Veral Aluminum | 3.28' x 33.5'; 90 lbs./sq. | ASTM D6298 | Aluminum clad asphalt elastomer sheet with woven fiberglass reinforcement for use as the top ply sheet of a Veral system. |
| Veral Copper | 3.28' x 33.5'; 105 lbs./sq. | ASTM D6298 | Copper clad asphalt elastomer sheet with fiberglass scrim reinforcement for use as the top ply of a Veral system. |
| PA 100 Mopping Asphalt | | ASTM D312 Type IV | Mopping Asphalt |
| PA 311/ 311 M/ 311 LS Adhesives | 5 or 55 gal. | ASTM D4479 | Blend of adhesive asphalts and quick-drying solvents. |
| PA 828 Flashing Cement | 5 gal. | ASTM D4586 | Flashing Cement |
| PA 1021 Plastic Cement | 5 gal. | ASTM D4586 | Asphalt cutback reinforced general purpose cement with non-asbestos fibers. |
| PA 1125 Asphalt Primer | 5 or 55 gal. | ASTM D41 | Asphalt primer. |
| PC – 227 | 5 or 55 gal | ASTM D6083 | Elastomeric roof coating. |

APPROVED INSULATIONS:

TABLE 2 Product Name Product Description ENRGY 3 Isocyanurate Insulation.

(With Current NOA) **ENRGY 3** Johns Manville ACFoam II Isocyanurate Insulation Atlas Roofing Corp. High Density Wood Fiberboard High Density Wood Fiber Generic insulation board. Perlite Insulation Board Perlite Insulation Generic Paratherm W, Paratherm H Isocyanurate Insulation Siplast DensDeck Water Resistant Gypsum Georgia-Pacific Gypsum LLC H-Shield Polyisocyanurate foam insulation. Hunter Panels, LLC



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Manufacturer

APPROVED FASTENERS:

TABLE 3

| Fastener Number | Product Name | Product Description | Dimensions | Manufacturer (With Current NOA) |
|--------------------|----------------------------------|---|---------------------------------|------------------------------------|
| 1. | Dekfast Fasteners #12, #14 & #15 | Insulation fastener for wood, steel and concrete decks | Various | SFS Intec |
| 2. | Dekfast Hex Plate | Galvalume hex stress plate. | $2^{7}/_{8}$ " x $3^{1}/_{4}$ " | SFS Intec |
| 3. | Dekfast Lock Plate | Polypropylene locking plate. | 3" x 3 1/4" | SFS Intec |
| 4. | #12 Roofgrip Fasteners | Insulation fastener for wood and steel. | Various | OMG |
| 5. | Metal Plate | Galvalume stress plate. | 3" round 3" square | OMG |
| 6. | Gearlok Plastic Plate | Polypropylene round plate | 3.2" | OMG |
| 7. | System ES-I | Insulation fastener with polyethylene stress plate for steel and wood decks | 3" round | SFS Intec |
| 9. | Olympic Base Sheet Disc | Barbed Steel Plates | 2-3/4" Round | OMG |
| 10. | Parafast XHD Screws | Extra Heavy Duty Fasteners for Steel and Wood Decks | Various | Siplast, Inc. |
| 11. | Parafast Base Sheet Disc | Barbed Steel Plates | 2-3/4" Round | Siplast, Inc. |



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EVIDENCE SUBMITTED:

| Test Agency/Identifier | <u>Name</u> | <u>Report</u> | Date |
|--|-------------------|---------------|-------------|
| Factory Mutual Research Corp. | FM 4470 | J.I. 2X1A2.AM | 11/04/93 |
| , i | FM 4470 | J.I. 0T0A2.AM | 10/24/91 |
| | FM 4470 | J.I. 1M9A7.AM | 09/03/86 |
| | FM 4470 | J.I. 0T2A7.AM | 10/28/91 |
| | FM 4470 | J.I. 1V2A3.AM | 06/29/92 |
| | FM 4470 | J.I. 2Y1A1.AM | 04/15/96 |
| | FM 4470 | J.I. 3Z3A7.AM | 04/12/96 |
| | FM 4470 | 3026320 | 09/06/06 |
| | FM 4470 | 3021507 | 11/04/05 |
| Underwriters Laboratories, Inc. | UL 790 | R10630 | 03/11/13 |
| Trinity-ERD | TAS 114 | #4701.02.96-1 | 02/28/96 |
| • | TAS 114 | #4701.09.96-1 | 08/22/96 |
| | TAS 117 | C8500SC.11.07 | 11/30/07 |
| PRI Construction Materials | ASTM D6163 | SRI-037-02-01 | 11/15/12 |
| Technologies LLC | ASTM D6163 | SRI-039-02-01 | 11/20/12 |
| | ASTM D6164 | SRI-041-02-01 | 11/15/12 |
| | ASTM D6163 | SRI-042-02-01 | 11/16/12 |
| | ASTM D6163 | SRI-042-02-02 | 11/18/12 |
| | ASTM D5147/D6163 | SRI-043-02-01 | 11/15/12 |
| | ASTM D5147/D6164 | SRI-044-02-01 | 12/07/12 |
| | ASTM D5147/D6163 | SRI-045-02-01 | 12/10/12 |
| | ASTM D5147/D6163 | SRI-045-02-03 | 11/18/12 |
| | ASTM D5147/D6163 | SRI-046-02-01 | 11/16/12 |
| | ASTM D6164 | SRI-047-02-01 | 12/07/12 |
| | ASTM D6298 | SRI-048-02-01 | 01/11/13 |
| | ASTM D4601 | SRI-049-02-01 | 11/13/12 |
| | ASTM D4601 | SRI-050-02-01 | 11/12/12 |
| | ASTM D4601 | SRI-051-02-01 | 11/12/12 |
| Atlantic & Caribbean Roof Consulting, LLC | TAS 114-J | 07-034 | 05/29/07 |



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APPROVED ASSEMBLIES

Membrane Type: SBS

Deck Type 1I: Wood, Insulated

Deck Description: $^{19}/_{32}$ " or greater plywood or wood plank

System Type A(1): Anchor sheet mechanically fastened; all layers of insulation fully adhered with

approved asphalt.

All General and System limitations apply.

Anchor Sheet: Parabase or Parabase Plus fastened to the deck as described below:

Fastening: Anchor sheet shall be lapped 4", fastened with approved roofing nails and tin caps

9" o.c. at the lap and two rows staggered in the center of the sheet 12" o.c.

One or more layers of any of the following insulations:

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|---------------------------------------|--------------------------------|----------------------------------|
| ENRGY 3, ACFoam II, H-Shield | , , | · |
| Minimum 1" thick | N/A | N/A |
| Approved Perlite | | |
| Minimum 3/4" thick | N/A | N/A |
| Approved High Density Wood Fiberboard | | |
| Minimum ½" thick | N/A | N/A |

Note: All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: (Optional) One or more plies Paraglas adhered to the insulation with approved

mopping asphalt at an application rate of 20-25 lbs./sq. See General Limitation

#4.

Ply Sheet: Paradiene 20 TG, 20 HV TG, 20 HT TG or 20 EG TG adhered by torch or

Paradiene 20, 20 FR, 20 HT, 20 HV or 20 EG adhered with approved mopping asphalt at an application rate of 20-25 lbs./sq. or with PA 311/PA-311M adhesive

at a rate of 1.5-2 gal/sq. See General Limitation #4.

Membrane: Paradiene 30 FR, Paradiene 30 CR FR or 30HT FR adhered in approved mopping

asphalt at an application rate of 20-25 lbs./sq. or PA 311/ PA-311M adhesive at a rate of 1.5-2 gal/sq. or Paradiene 30 FR TG, Paradiene 30 CR FR TG or 30 HT

FR TG adhered by torch.

Maximum Design

Pressure: -52.5 (See General Limitation #9.)



NOA No.: 12-1220.03 Expiration Date: 04/14/18 Approval Date: 04/11/13 Page 7 of 15 **Membrane Type:** SBS Foil

Deck Type 1I: Wood, Insulated

Deck Description: $^{19}/_{32}$ " or greater plywood or wood plank

System Type A(2): Anchor sheet mechanically fastened; all layers of insulation fully adhered with

approved asphalt.

All General and System limitations apply.

Anchor Sheet: Parabase or Parabase Plus fastened to the deck as described below:

Fastening: Anchor sheet shall be lapped 4", fastened with approved roofing nails and tin caps

9" o.c. at the lap and two rows staggered in the center of the sheet 12" o.c.

One or more layers of any of the following insulations:

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|---|-----------------------------------|----------------------------------|
| ENRGY 3, ACFoam II, H-Shield | , , , , | • |
| Minimum 1" thick | N/A | N/A |
| Approved Perlite | | |
| Minimum ³ / ₄ " thick | N/A | N/A |
| Approved High Density Wood Fiberboard | | |
| Minimum ½" thick | N/A | N/A |

Note: All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: (Optional) One or more plies Paraglas adhered to the insulation with approved

mopping asphalt at an application rate of 20-25 lbs./sq. See General Limitation

#4.

Ply Sheet: IREX 40 or IREX HT adhered in approved mopping asphalt at an application rate

of 20-25 lbs./sq. IREX 40 or IREX HT may also be applied by torch. See General

Limitation #4.

Membrane: Veral Aluminum or Veral Copper adhered in approved mopping asphalt or

adhered by torch.

Maximum Design

Pressure: -52.5 (See General Limitation #9.)



NOA No.: 12-1220.03 Expiration Date: 04/14/18 Approval Date: 04/11/13 Page 8 of 15 **Membrane Type:** SBS

Deck Type 1I: Wood, Insulated

Deck Description: 19/32" or greater plywood or wood plank

System Type B(1): Base layer of insulation mechanically attached, top layer adhered with approved

asphalt.

All General and System limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|---|-----------------------------------|----------------------------------|
| ENRGY 3, ACFoam II, H-Shield Minimum 1.3" thick | 1 or 4 | 1:3 ft ² |
| Approved Perlite Minimum ³ / ₄ " thick | 1 or 4 | 1:2 ft ² |

Note: Base layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|--|-----------------------------------|----------------------------------|
| Approved Perlite Minimum ¾" thick | N/A | N/A |
| High Density Wood Fiberboard Minimum ½" thick | N/A | N/A |

Note: Apply top layer of insulation in a full mopping of any approved mopping asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: (Optional) One or more plies Paraglas adhered to the insulation with approved

mopping asphalt at an application rate of 20-25 lbs./sq. See General Limitation

#4.

Ply Sheet: Paradiene 20 TG, 20 HV TG, 20 HT TG or 20 EG TG adhered by torch or

Paradiene 20, 20 FR, 20 HT, 20 HV or 20 EG adhered with approved mopping asphalt at an application rate of 20-25 lbs./sq. or with PA 311/PA 311M adhesive

at a rate of 1.5-2 gal/sq. See General Limitation #4.

Membrane: Paradiene 30 FR, Paradiene 30 CR FR or 30 HT FR adhered in approved mopping

asphalt at an application rate of 20-25 lbs./sq. or with PA 311/PA 311M adhesive at a rate of 1.5-2 gal/sq. or Paradiene 30 FR TG, Paradiene 30 CR FR TG or 30

HT FR TG adhered by torch.

Maximum Design

Pressure: -52.5 (See General Limitation #9.)



NOA No.: 12-1220.03 Expiration Date: 04/14/18 Approval Date: 04/11/13 Page 9 of 15 **Membrane Type: SBS** Foil

Deck Type 1I: Wood, Insulated

¹⁹/₃₂" or greater plywood or wood plank **Deck Description:**

Base layer of insulation mechanically attached, top layer adhered with approved System Type B(2):

asphalt.

All General and System limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|--|--------------------------------|----------------------------------|
| ENRGY 3, ACFoam II, H-Shield Minimum 1.3" thick | 1 or 4 | 1:3 ft ² |
| Approved Perlite Minimum ¾" thick | 1 or 4 | 1:2 ft ² |

Note: Base layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|---------------------------------------|-----------------------------------|----------------------------------|
| Approved Perlite Minimum ¾" thick | N/A | N/A |
| Approved High Density Wood Fiberboard | | |
| Minimum ½" thick | N/A | N/A |

Note: Apply top layer of insulation in a full mopping of any approved mopping asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: (Optional) One or more plies Paraglas adhered to the insulation with approved

mopping asphalt at an application rate of 20-25 lbs./sq. See General Limitation

Ply Sheet: IREX 40 or IREX HT adhered in approved mopping asphalt at an application rate

of 20-25 lbs./sq. IREX 40 or IREX HT may also be applied by torch. See General

Limitation #4

Membrane: Veral Aluminum or Veral Copper adhered in approved mopping asphalt at an

application rate of 20-25 lbs./sq. or adhered by torch.

Maximum Design

Pressure: -52.5 (See General Limitation #9.)



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Membrane Type: SBS

Deck Type 1I: Wood, Insulated

Deck Description: ¹⁹/₃₂" or greater plywood or wood plank

System Type C(1): All of insulation simultaneously attached.

All General and System limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|---|-----------------------------------|----------------------------------|
| ENRGY 3, ACFoam II, H-Shield | , | • |
| Minimum 1.3" thick | N/A | N/A |
| Approved Perlite | | |
| Minimum ³ / ₄ " thick | N/A | N/A |
| Approved High Density Wood Fiberboard | | |
| Minimum ½" thick | N/A | N/A |

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining e same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|---|-----------------------------------|----------------------------------|
| Approved Perlite Minimum ¾" thick | 1 or 4 | 1:2 ft ² |
| Approved High Density Wood Fiberboard Minimum ½" thick | 1 or 7 | 1:4 ft ² |

Base Sheet: (Optional) One or more plies Paraglas adhered to the insulation with approved

mopping asphalt at an application rate of 20-25 lbs./sq. See General Limitation

#4.

Ply Sheet: Paradiene 20 TG, 20 HV TG, 20 HT TG or 20 EG TG adhered by torch or

Paradiene 20, 20 FR, 20 HT, 20 HV or 20 EG adhered with approved mopping asphalt at an application rate of 20-25 lbs./sq. or with PA 311/PA-311M adhesive

at a rate of 1.5-2 gal/sq. See General Limitation #4.

Membrane: Paradiene 30 FR, Paradiene 30 CR FR or 30 HT FR adhered in approved mopping

asphalt at an application rate of 20-25 lbs./sq. or with PA 311/PA 311M adhesive at a rate of 1.5-2 gal/sq. or Paradiene 30 FR TG, Paradiene 30 CR FR TG or 30 HT

FR TG adhered by torch.

Maximum Design

Pressure: -52.5 (See General Limitation #9.)



NOA No.: 12-1220.03 Expiration Date: 04/14/18 Approval Date: 04/11/13 Page 11 of 15 **Membrane Type:** SBS Foil

Deck Type 1I: Wood, Insulated

Deck Description: $^{19}/_{32}$ " or greater plywood or wood plank

System Type C(2): All of insulation simultaneously attached.

All General and System limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|---------------------------------------|-----------------------------------|----------------------------------|
| ENRGY 3, ACFoam II, H-Shield | , , | · |
| Minimum 1.3" thick | N/A | N/A |
| Approved Perlite | | |
| Minimum ¾" thick | N/A | N/A |
| Approved High Density Wood Fiberboard | | |
| Minimum ½" thick | N/A | N/A |

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining e same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|---|-----------------------------------|----------------------------------|
| Approved Perlite Minimum ¾" thick | 1 or 4 | 1:2 ft ² |
| Approved High Density Wood Fiberboard Minimum ½" thick | 1 or 7 | 1:4 ft ² |

Base Sheet: (Optional) One or more plies Paraglas adhered to the insulation with approved

mopping asphalt at an application rate of 20-25 lbs./sq. See General Limitation

#4.

Ply Sheet: IREX 40 or IREX HT adhered in approved mopping asphalt at an application rate

of 20-25 lbs./sq. IREX 40 or IREX HT may also be applied by torch. See

General Limitation #4

Membrane: Veral Aluminum or Veral Copper adhered in approved mopping asphalt at an

application rate of 20-25 lbs./sq. or adhered by torch.

Maximum Design

Pressure: -52.5 (See General Limitation #9.)



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Membrane Type: SBS

Deck Type 1I: Wood, Insulated

Deck Description: $^{19}/_{32}$ " or greater plywood or wood plank nailed in the field 6" o.c. with #8 ring

shank nails and 4" o.c. at the perimeter of the sheet or plank with #10 ring shank

nails. Wood sheathing supports shall be spaced maximum 24" o.c.

System Type D: All insulation is loose laid with preliminary attachment to roof deck. Membrane

is subsequently mechanically fastened through insulation layers to the roof deck.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Pensity/ft²

ACFoam-II, Paratherm, H-Shield

Minimum 1.5" thick N/A N/A

Note: Top layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Top Insulation Layer Insulation Fasteners (Table 3) Fastener Density/ft²

DensDeck

Minimum ¼" thick N/A N/A

Base Sheet: Paradiene 20 PR mechanically fastened through base and top insulation layers.

into wood decking with Parafast XHD Screws and Parafast Base Sheet Disc at 12 o.c. at the previously heat welded 4" side lap and three staggered rows 12" o.c. in

the field of the sheet.

Ply Sheet: Paradiene 20 TG, 20 HV TG, 20 HT TG or 20 EG TG adhered by torch or

Paradiene 20, 20 FR, 20 HT, 20 HV or 20 EG adhered with approved mopping asphalt at an application rate of 20-25 lbs./sq. or with PA 311/PA-311M adhesive

at a rate of 1.5-2 gal/sq. See General Limitation #4.

Membrane: Paradiene 30 FR, Paradiene 30 CR FR or 30 HT FR adhered in approved mopping

asphalt at an application rate of 20-25 lbs./sq. or Paradiene 30 FR TG, Paradiene

30 CR FR TG or 30 HT FR TG adhered by torch.

Maximum Design

Pressure: -172.5 (See General Limitation #7.)

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SBS Membrane Type:

Deck Type 1: Wood, Non-Insulated

Deck Description: ¹⁹/₃₂" or greater plywood or wood plank

System Type E(1): Base sheet mechanically fastened.

All General and System limitations apply.

Base Sheet: Parabase or Parabase Plus, mechanically fastened as specified below:

Base sheet shall be lapped 4", fastened with approved roofing nails and tin caps 9" Fastening:

o.c. in the lap and two rows staggered in the center of the sheet 12" o.c.

Ply Sheet: Paradiene 20 TG, 20 HV TG, 20 HT TG or 20 EG TG, adhered by torch, or

> Paradiene 20, 20 FR, 20 HT, 20 HV or 20 EG adhered with approved mopping asphalt at an application rate of 20-25 lbs./sq. or with PA 311/ PA 311M adhesive

at a rate of 1.5-2 gal/sq.

Membrane: Paradiene 30 FR, Paradiene 30 CR FR or 30 HT FR adhered with approved

roofing asphalt or PA 311/ PA 311M adhesive at a rate of 1.5-2 gal/sq. or

Paradiene 30 FR TG, Paradiene 30 CR FR TG or 30 HT FR TG adhered by torch.

Maximum Design

Pressure: -52.5 (See General Limitation #9.)

SBS Foil **Membrane Type:**

Deck Type 1: Wood, Non-Insulated

Deck Description: ¹⁹/₃₂" or greater plywood or wood plank

System Type E(2): Base sheet mechanically fastened.

All General and System limitations apply.

Base Sheet: Parabase or Parabase Plus, mechanically fastened as specified below:

Base sheet shall be lapped 4", fastened with approved roofing nails and tin caps Fastening:

9" o.c. in the lap and two rows staggered in the center of the sheet 12" o.c.

Ply Sheet: IREX 40 or IREX HT, adhered in approved mopping asphalt at an application

rate of 20-25 lbs./sq. IREX 40 or IREX HT may also be applied by torch.

Membrane: Veral Aluminum or Veral Copper adhered in approved mopping asphalt at an

application rate of 20-25 lbs./sq. or by torch.

Maximum Design

-45 (See General Limitation #9.) Pressure:



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WOOD DECK SYSTEM LIMITATIONS:

A slip sheet is required with Ply 4 and Ply 6 when used as a mechanically fastened base or anchor sheet.

GENERAL LIMITATIONS:

- 1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
- 2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
- 3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
- 4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.

Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.

- 5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
- 6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
- 7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant (When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)
- 8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
- 9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). (When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)
- 10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9N-3 of the Florida Administrative Code

END OF THIS ACCEPTANCE

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